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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,736	05/14/2001	Keiji Otaki	109508	7118
25944	7590	05/14/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			HUG, ERIC J	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/831,736

Applicant(s)

OTAKI ET AL.

Examiner

Eric Hug

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 is/are allowed.
- 6) ☒ Claim(s) 4,6,8 and 10 is/are rejected.
- 7) ☒ Claim(s) 5,7,9 and 11-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Objections

Claim 12 is objected to because of the following spelling error:

The last paragraph of the claim reads "ejecting compressed fluid in an angle of 15-30 degree relative to the generatrix direction of the outer circumference of the peripheral wall of the rotating member, to the flame flow including secondary fibers, to collide the secondary fibers with the compressed fluid, so as to cut the secondary fibers to control al engine of the secondary fibers, wherein a distance between a top edge of the compressed fluid and a bottom edge of the peripheral wall of the rotating member is 30-50 mm. The underlined portion should recite "a length".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 4, 6, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Houpt (US 5,514,199). Houpt discloses a spinner for making dual component glass fibers. In Figure 3, the spinner is shown to have an outer wall (64) with orifices (90) of like size arranged in vertical rows. Each vertical row communicates with a compartment (88). Molten glass types A and B are fed to alternating compartments. Thus, alternating rows of orifices deliver fibers of types A or B. The relative sizes of the orifices may differ to produce different flow rates of fibers of

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types A and B, thus producing different percentages of A and B. Therefore, alternating vertical rows may have orifices of different diameter. See column 5, lines 8-32. The result is two types of orifices having different diameter arranged in alternating fashion circumferential around the peripheral face of the spinner. This would also result in alternating longitudinal rows (or bands) of orifices of different diameter arranged in the circumferential direction. Arranged above and around the spinner is an annular burner 70 which has an outlet directed parallel to the outer wall of the spinner. Annular blower 72 is positioned around the burner and around the peripheral wall of the rotating member and air is ejected from the nozzle of blower 72 at an acute angle relative to the outer circumference of the peripheral wall (see direction of arrows in Figure 2). Therefore, the apparatus of Houpt comprises all the features of claim 4, namely the rotating member having alternating larger and smaller orifices in the circumferential direction, the circular drawing burner and all its claimed features, and the ejecting nozzle and all its claimed features.

With regards to the bands of orifices of claim 6, this is the same as the arrangement of orifices A and B described above.

With regards to the orifice size of claims 8 and 10, in the spinner of Houpt the diameter of the orifices can be varied between 0.25 to 1.0 mm (column 5, line 21). The diameters are of equal size when equal amounts of types A and B are produced, and then varied as the composition changes. Thus, varying the diameter between 0.25 to 1.0 mm would encompass the claimed diameter difference between 0.02 to 0.3 mm.

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Allowable Subject Matter

Claims 1-3 are allowed.

Claim 12 would be allowable if rewritten to overcome the objection given above.

Claims 5, 7, 9, 11, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 1-3 and 12 are allowed for having at least a larger orifice and a smaller orifice arranged alternately in the peripheral wall of the rotating member, and also for ejecting a compressed fluid at an angle relative to the flame flow and fibers in order to cut and control the length of the fibers.

Claims 5, 7, 9, 11, and 13 are allowable for having at least the feature of four orifices of different diameters in the claimed arrangements.

Response to Arguments

Applicant argues persuasively that the prior art cited previously does not disclose or suggest ejecting a compressed fluid at an acute angle in order to cut the secondary fibers and control the length of the secondary fibers. In the prior art references, air or other source of fluid is directed at the secondary fibers in order to draw, attenuate, cool, and/or coat the fibers. However, Houpt discloses all the features of the claimed apparatus as described above. It is the examiner's position that there is no structural difference between the blower 72 of Houpt and the claimed ejecting nozzle, as both are arranged around the drawing burner and peripheral wall of

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the rotating member, and both eject air at an acute angle relative to the generatrix direction of the outer circumference of the peripheral wall.

Applicant's amendments to the claims and supporting arguments have overcome the rejection of claims 5, 7, 9, and 11 under U.S.C. 112, second paragraph, given in the previous office action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Tuffal et al (US 6,596,048) discloses a glass fiber centrifuge having rows of orifices of different diameter.

Perry (US 3,785,791) discloses using a plurality of compressed air nozzles arranged around a rotating member in order to attenuate the fibers formed through the orifices of the rotating member.

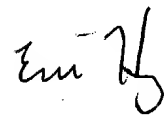
New grounds of rejection have been set forth in this office action not necessitated by amendment, therefore this action is non-final.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192. The examiner can normally be reached on Monday through Friday, 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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